

New Patent Claims

1. An arrangement for testing a power output stage, the power  
5 output stage having at least three half-bridges which each  
comprise a series circuit formed by an upper and a lower  
semiconductor switch and to which the operating voltage is  
applied, and the junction points of the semiconductor switches  
of the half-bridges forming outputs which are connected to  
10 windings of an at least three-phase motor, a control device  
(20) being provided, which switches respectively one or  
respectively simultaneously a plurality of the semiconductor  
switches (1 to 6) into the on state according to a  
predetermined program and in the process tests whether the  
15 respective voltages at the outputs (10, 11, 12) respectively  
lie within a predetermined tolerance range for the respective  
switching state, characterized in that the feeds to the  
windings (13, 14, 15) can be interrupted with the aid of  
further switches (31, 32).

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2. The arrangement as claimed in claim 1, characterized in  
that the windings (13, 14, 15) of the motor form a star  
connection, and in that the further switches (32, 31) are  
arranged at the star point and in the feed lines, from the  
25 outputs to the windings (13, 14, 15).

3. The arrangement as claimed in either of claims 1 or 2,  
characterized in that the further switches (31, 32) are relays.

30 4. The arrangement as claimed in one of the preceding claims,  
characterized in that provision is made of connections of the  
outputs (10, 11, 12) of the half-bridges (7, 8, 9) and of the  
operating voltage to inputs of window comparators (20') via  
voltage dividers (22, 23, 24, 25).

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5. The arrangement as claimed in one of the preceding claims, characterized in that means are provided which have the effect that when semiconductor switches (1 to 6) are not in the on state, the respective output voltage lies within the  
5 predetermined average tolerance range.

6. The arrangement as claimed in claim 5, characterized in that the means are formed by a resistor (26), which is located between the output (10) of one of the half-bridges (7, 8, 9)  
10 and the operating voltage source and generates together with the voltage divider (23) at the output (10) a voltage in the average tolerance range.

7. The arrangement as claimed in one of the preceding claims,  
15 characterized in that a controllable switch (17) is provided in the feed line of the operating voltage, a resistor (18) being connected in parallel with said controllable switch, and in that the controllable switch (17) can be controlled by the control device (20).